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RESEARCH ARTICLE

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Notulae to the Italian alien vascular flora: 3

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Abstract

In this contribution, new data concerning the Italian distribution of alien vascular flora are presented. It includes new records, exclusions, confirmations, and status changes for Italy or for Italian administrative regions for taxa in the genera *Acer*, *Amaranthus*, *Araujia*, *Aubrieta*, *Avena*, *Bidens*, *Calycanthus*, *Celtis*, *Elaeagnus*, *Eragrostis*, *Euonymus*, *Fallopia*, *Ficus*, *Hedera*, *Lantana*, *Ligustrum*, *Ludwigia*, *Morus*, *Oenothera*, *Opuntia*, *Oxalis*, *Parkinsonia*, *Paspalum*, *Paulownia*, *Platycladus*, *Pleuropterus*, *Rumex*, *Salvia*, *Senecio*, *Setaria*, *Syagrus*, *Tradescantia*, *Trifolium* and *Yucca*. Furthermore, a new combination in the genus *Vicia* is proposed.

Keywords

Floristic data, Italy, new combination

How to contribute

The text for the new records should be submitted electronically to Chiara Nepi (chiara.nepi@unifi.it). The corresponding specimen along with its scan or photograph has to be sent to FI Herbarium: Sezione di Botanica Filippo Parlatore del Museo di Storia Naturale, Via G. La Pira 4, 50121 Firenze (Italy). Those texts concerning nomenclatural novelties (typifications only for accepted names), status changes, exclusions, and confirmations should be submitted electronically to: Gabriele Galasso (gabriele.galasso@comune.milano.it). Each text should be within 2,000 characters (spaces included).

Floristic records

Acer negundo L. (Sapindaceae)

+ (CAS) **PUG**: Maglie (Lecce), margine del parco pubblico "Villa Achille Tamborino" (WGS84: 40.117286°N; 18.299727°E), siepi e radure, ca. 82 m, 20 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

Several young individuals of the species, some higher than 2 m, grow at the margins of an urban park, inside hedges of *Laurus nobilis* L. and in clearings of *Quercus ilex* L. subsp. *ilex*. The specimens have developed in a partially shaded position, on dry, brown, calcareous luvisol covered by evergreen oak litter. They derive from wind-dispersed samaras produced by trees cultivated in the park.

N. Olivieri

Amaranthus ×*ozanonii* Thell. (Amaranthaceae)

+ (CAS) **CAL**: Oriolo (Cosenza), C.da Scalapitta nei pressi del Torrente Scalapitto (WGS84: 40.040365°N; 16.451603°E), incolto al margine di una strada sterrata, 325 m, 24 August 2016, *F. Roma-Marzio* (FI). – Casual alien nothospecies new for the flora of Calabria.

This hybrid between *Amaranthus hybridus* L. and *A. retroflexus* L. is probably native to Europe (Iamonico 2015). In Oriolo it is represented by many plants occupying uncultivated land at the margin of a dirt road.

F. Roma-Marzio, D. Iamonico

Araujia sericifera Brot. (Apocynaceae)

+ (CAS) **MOL**: Termoli (Campobasso), versante collinare S del Vallone del Riovivo (WGS84: 41.994961°N; 14.995788°E), pineta artificiale, ca. 27 m, 3 September 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Molise.

The species is represented by a small number of individuals in the undergrowth of an artificial pine forest composed mostly of *Pinus halepensis* Mill. subsp. *halepensis* and *P. pinaster* Aiton subsp. *escarena* (Risso) K.Richt., in the urban park of Termoli near the Adriatic coast. Plants grow in partial shade, on sandstone soil covered by a herbaceous vegetation typical of disturbed areas.

N. Olivieri

Aubrieta deltoidea (L.) DC. (Brassicaceae)

= *Aubrieta* ×*cultorum* Bergmans

+ (CAS) **TAA**: Pieve Tesino (Trento), walls of the town centre (WGS84: 46.069459°N; 11.609140°E), stone and cement walls, 850 m, S, 27 June 2016, *G. Mei* (FI, ANC, *Herb. G. Mei*). – Casual alien species new for the flora of Trentino-Alto Adige.

The species is widely cultivated as ornamental and is naturalized in southern and western Europe, widespread in Spain, France, Switzerland, England, Greece and the Balkans. The population of Pieve Tesino is interesting for its abundant fructification, for the presence of individuals of different ages and for the presence of seedlings. These features can be interpreted as the possible start of a future naturalization of the species.

G. Mei

Avena atherantha C.Presl (Poaceae)

+ (NAT) **MAR**: Potenza Picena (Macerata), Autostrada "Adriatica" A14, a S di C.da Terranova (WGS84: 43.384741°N; 13.680887°E), scarpata stradale, con *Sambucus ebulus*, *Arundo donax*, *Urtica dioica*, 8 m, 30 May 2016, *N. Ardenghi*, *P. Cauzzi*, *F. Guzzon* (FI). – Naturalized cryptogenic species confirmed for the flora of Marche.

A large population was detected growing on the motorway embankment; further stands (impossible to sample due to their unsafe location) were observed along Autostrada A14 in the same area. The species was first reported for this region by Ballelli (2002), but the record was not taken into account by Gubellini (2005, 2009).

N.M.G. Ardenghi, P. Cauzzi, F. Guzzon

Avena sativa L. subsp. *byzantina* (K.Koch) Romero Zarco (Poaceae)

+ (CAS) **BAS**: Matera (Matera), tra Masseria di Pietrapenta e Strada Provinciale Papalione (WGS84: 40.631968°N; 16.545906°E), margine di sterrata, con *Avena barbata* e *Dasypyrum villosum*, 150 m, 9 June 2016, *N. Ardenghi*, *P. Cauzzi* (FI). – Casual alien species new for the flora of Basilicata.

About 100 individuals were observed on the edges of an unsurfaced road.

N.M.G. Ardenghi, P. Cauzzi, F. Guzzon

Bidens aurea (Aiton) Sherff (Asteraceae)

+ (NAT) **PUG**: San Nicandro Garganico (Foggia), presso San Giuseppe (Km 20 della Strada Provinciale) (WGS84: 41.823250°N; 15.549489°E), cunette stradali, 250 m, 6 December 1987, *F. Pantaleo* (RO–Anzalone–3688); *ibidem*, presso "San Giuseppe" (WGS84: 41.823250°N; 15.549489°E), cunette stradali, 250 m, 23 November 1988, *F. Pantaleo* (RO–Anzalone–3689 sub *Bidens* sp.); *ibidem*, a W del paese, all'inizio della strada per San Marco in Lamis (WGS84: 41.823250°N; 15.549489°E), cunetta stradale, 250 m, 27 October 2016, *R.P. Wagensommer* (FI, *Herb. R.P. Wagensommer*). – Naturalized alien species new for the flora of Puglia.

In Italy, *Bidens aurea* is already known in Veneto, Toscana, Sicilia (Conti et al. 2005, 2007), Calabria (Bernardo et al. 2009), Lazio (Ceschin et al. 2010), Campania (Rosati et al. 2012), and Sardegna (Podda et al. 2012). During the digitization of the *B. Anzalone herbarium* in RO (Iberite et al. 2010), we found sheets collected almost 30 years ago in Puglia, on the Gargano Promontory, near San Nicandro Garganico. A field trip allowed us to confirm that the species is still present in the same locality, covering a small area of about 5 m^2, with no evidence of invasiveness.

G. Nicolella, M. Latini, R.P. Wagensommer, M. Iberite

Calycanthus floridus L. (Calycanthaceae)

+ (CAS) **ITALIA** (**TOS**): Seravezza (Lucca), valle del Torrente Serra, lungo la strada per Azzano, poco dopo la loc. Desiata (WGS84: 44.025840°N; 10.221460°E), casuale lungo la scarpata stradale, 216 m, 8 June 2016, *G. Ferretti*, *M. Gennai*, det. *G. Ferretti* (FI). – Casual alien species new for the flora of Italy (Toscana).

Calycanthus floridus is native to North America and cultivated in Italy as ornamental. A spontaneous population on an area of approximately 50 m^2 was found on the way to Azzano on the Apuan Alps, on a slope at the road edge. The population is probably originated from a plant once cultivated nearby. The specimens were identified according to Johnson (1997).

G. Ferretti, M. Gennai

Celtis occidentalis L. (Cannabaceae)

+ (CAS) **ABR**: Teramo (Teramo), loc. Coste di Sant'Agostino, lungo Via A. De Gasperi (WGS84: 42.663697°N; 13.703552°E), margine stradale, ca. 270 m, SW, 27 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Abruzzo.

A young individual, about 2 m high, grows at the road edge, along the northern side of the Vezzola River valley covered by disturbed shrub vegetation. The location is outside the urban area and is characterized by pelitic-arenaceous sedimentary substrate. The vegetation consists of *Robinia pseudoacacia* L., *Rubus ulmifolius* Schott, *Ailanthus altissima* (Mill.) Swingle, *Hedera helix* L. *Ulmus minor* Mill., *Artemisia verlotiorum* Lamotte and *Inula conyzae* (Griess.) DC. There are no trees of *C. occidentalis* nearby, so the plant could be derived from a seed dispersed by endozoochory, since its fleshy drupes are eaten by birds. Until now the species has been reported in Italy from Piemonte, Lombardia, Veneto, Trentino-Alto Adige (Celesti-Grapow et al. 2009), and Emilia-Romagna (Bracchi and Romani 2010).

N. Olivieri

Elaeagnus ×ebbingei Door. (Elaeagnaceae)

+ (CAS) **ITALIA** (**ABR**): Pescara (Pescara), "Pineta Dannunziana" (WGS84: 42.455813°N; 14.234277°E), radure, ca. 2 m, 11 August 2016, *N. Olivieri* (FI). – Casual alien nothospecies new for the flora of Italy (Abruzzo).

Elaeagnus ×ebbingei (*E. macrophylla* Thunb. × *E. pungens* Thunb.) is a hybrid used as an ornamental plant, especially in coastal areas. Some individuals grow on dry sandy substrates in peripheral clearings of the "Pineta Dannunziana", near the Adriatic Sea not far from private and public gardens where the plant might be cultivated. They are partially shaded by foliage of *Pinus halepensis* Mill. subsp. *halepensis*. The presence of *E. ×ebbingei* in Italy has also been reported in Emilia-Romagna, but only as cultivated hybrid in pinewoods and dunes of the Parco Delta del Po (Lazzari et al. 2010, 2012). The species was identified according to Barnes and Whiteley (2011).

N. Olivieri

Eragrostis curvula (Schrad.) Nees (Poaceae)

– **LOM**. – Alien species to be excluded from the flora of Lombardia.

The only record of *Eragrostis curvula* for Lombardia (Mauri et al. 2012), based on a herbarium specimen stored at MSNM (duplicate in FI), is actually a misidentification with *E. pectinacea* (Michx.).

F. Verloove, G. Galasso

Eragrostis mexicana (Hornem.) Link subsp. *virescens* (J.Presl) S.D.Koch & Sánchez Vega (Poaceae)

+ (CAS) **PUG**: Casamassima (Bari) (WGS84: 40.951816°N; 16.888951°E), campo di olivi e altri fruttiferi, periodicamente arato, 230 m, 27 September 2016, *F.S. D'Amico, M. Terzi* (FI, BI). – Casual alien species new for the flora of Puglia.

Eragrostis mexicana subsp. *virescens* is an alien plant from South America (Argentina and Chile) whose European distribution area ranges from Portugal to Poland, and from Great Britain to Italy (Martini and Scholz 1998, Valdés and Scholz 2009). In Italy, it was recorded in northern regions and Calabria (Martini and Scholz 1998, Celesti-Grapow et al. 2009, Galasso et al. 2016a). A few individuals were found in an olive grove in a typical weed vegetation, thus confirming the occurrence of this taxon in southern Italy, where it has probably been confused with *E. pilosa* (L.) P.Beauv. subsp. *pilosa*, from which it can be distinguished for the lower isolated branch of the inflorescence (*versus* verticillate) and a pit on the ventral face of seeds (Martini and Scholz 1998).

F.S. D'Amico, M. Terzi

Euonymus japonicus Thunb. (Celastraceae)

+ (CAS) **PUG**: Otranto (Lecce), ruderi di un edificio situato in Via M. Corti (WGS84: 40.152152°N; 18.473799°E), ruderi, ca. 7 m, 21 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

An individual of the species, reaching 3 m in height, was found growing among limestone blocks within the ruins of a building collapsed some time ago. The plant grows in a rather shady position, protected from the wind, set against an inner wall of the building. The substrate is limestone rock debris and calcarenite, on which a layer of soil has developed. The site is characterized by a humid microclimate, a few meters away from the Adriatic Sea.

N. Olivieri

Fallopia baldschuanica (Regel) Holub (Polygonaceae)

+ (NAT) **BAS**: Matera (Matera), Tre Ponti, Strada Statale 7 "Appia", all'altezza dell'ex "Bar Ristorante delle Murge" (WGS84: 40.679654°N; 16.625529°E), scarpata stradale, con *Elymus* cfr. *repens*, 351 m, N, 8 June 2016, *N. Ardenghi, P. Cauzzi, F. Guzzon* (FI). – Naturalized alien species new for the flora of Basilicata.

Dense mats of this species have been observed also in Matera, about 350 m west from the locality of the reported herbarium specimen, along Strada Statale 7 (WGS84:

40.679810°N; 16.621462°E), and in Via V. Cappelluti, growing on an old wall (WGS84: 40.663492°N; 16.599205°E).

N.M.G. Ardenghi, P. Cauzzi, F. Guzzon

Ficus microcarpa L.f. (Moraceae)

+ (CAS) **PUG**: Brindisi (Brindisi), Via Duca degli Abruzzi, giardini pubblici presso il monumento al Marinaio d'Italia (WGS84: 40.645208°N; 17.946816°E), epifita su *Phoenix canariensis*, ca. 10 m, 22 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

Ficus microcarpa is a halophytic species native to India, Sri Lanka, Nepal, China, Taiwan, Japan, Ryukyu Islands, Indochinese Peninsula, Indo-Malay Archipelago, Philippines, north-eastern Australia, New Caledonia, Solomon Islands, and part of Micronesia, widespread for ornamental purposes in Central and South America, Florida, southern California, Puerto Rico, Hawaiian Islands, Bermuda, New Zealand, and some Mediterranean countries. In many of these countries it is naturalized as lithophyte and hemi-epiphyte, often as invasive. In the Mediterranean region, it is considered invasive in Israel (Dufour-Dror 2013). In Brindisi, some young individuals have developed on the top of the trunk of a medium sized *Phoenix canariensis* H.Wildpret, between the rachis residues of cut leaves. They originated from seeds produced by a tree growing in a neighbouring garden. The syconia of this species are eaten by birds and the plant spreads by zoochory. In Italy, *F. microcarpa* has, until now, been reported in Sicilia (Schicchi 1999, Domina and Mazzola 2002) and Sardegna (Lazzeri et al. 2015) as naturalized and casual alien species, respectively.

N. Olivieri

Hedera algeriensis Hibberd (Araliaceae)

+ (CAS) **MAR**: Grottammare (Ascoli Piceno), Via Beata L. Sernardi (WGS84: 42.996095°N; 13.866046°E), crepa nell'asfalto tra muro e strada, 91 m, 30 May 2016, *N. Ardenghi, P. Cauzzi, F. Guzzon* (FI). – Casual alien species new for the flora of Marche.

N.M.G. Ardenghi, P. Cauzzi, F. Guzzon

Hedera canariensis Willd. (Araliaceae)

+ (CAS) **PUG**: Bisceglie (Barletta-Andria-Trani), loc. Matinella, SP85 (WGS84: 41.186373°N; 16.472764°E), incolto con *Lolium perenne* e *Vitis* ×*koberi*, 120 m,

2 June 2016, *N. Ardenghi, P. Cauzzi, F. Guzzon* (FI). – Casual alien species new for the flora of Puglia.

N.M.G. Ardenghi, P. Cauzzi, F. Guzzon

Lantana camara L. subsp. *aculeata* (L.) R.W.Sanders (Verbenaceae)

+ (NAT) **SIC**: Palermo (Palermo), Inserra (WGS84: 38.151857°N; 13.305263°E), pascolo, ca. 150 m, 9 November 2001, *P. Mazzola, G. Domina* (PAL); Vittoria (Ragusa), Scoglitti, incolti a E di Via Cocalo (WGS84: 36.889971°N; 14.436246°E), incolto con *Mirabilis jalapa*, *Saccharum biflorum* e *Solanum linnaeanum*, 31 m, no exp., 10 June 2014, *E. Banfi* (FI, MSNM); Santa Flavia (Palermo), Capo Zafferano, sulle pareti delle rupi sopra la strada (Stradella Vicinale Torre Zafferano) che porta al faro (WGS84: 38.110155°N; 13.538511°E), rupi, ca. 30 m, NE, 16 June 2016, *G. Domina* (PAL). – Naturalized alien subspecies new for the flora of Sicilia.

This taxon has already been reported in Abruzzo (Galasso et al. 2016a) and Molise (Galasso et al. 2016b). The previous report for Sicilia by Domina and Mazzola (2002) of *Lantana camara* has to be referred to this subspecies. According to Sanders (2012), it is easily distinguished due to the stout, recurved, often abundant prickles that cover stems. The plant appears as a robust shrub sometimes up to 3 m in height; corollas, basically yellow, aging red-orange, are typically infused with purple, sometimes pink at opening, aging to deep reddish-purple. Cultivated worldwide in the tropics and subtropics (horticultural origin) and largely escaped, especially in Africa and Australia (Sanders 2012); within the genus *Lantana*, this taxon seems to show a great autonomy in temperate climates.

E. Banfi, G. Galasso, G. Domina

Lantana depressa Small (Verbenaceae)

+ (CAS) **ITALIA** (**SIC**): Vittoria (Ragusa), Scoglitti, prolungamento sterrato di Via Pescara verso la spiaggia (WGS84: 36.892863°N; 14.427918°E), residui di duna, 9 m, no exp., 10 June 2014, *E. Banfi* (FI, MSNM). – Casual alien species new for the flora of Italy (Sicilia).

According to Sanders (2012), the collected plants have to be attributed to the type variety of the species (var. *depressa*) because of its low-mounded shape, the height not reaching 1 m, the lack of a main stem, stems numerous, condensed, prominent, prostrate or decumbent and leaf blade not longer than 3 cm, strigilloso-strigose on the adaxial surface. It comes from peninsular Florida (Miami Ridge), where it typically grows in limestone pinelands; extensively cultivated and escaped in tropics and subtropics worldwide (Sanders 2012).

E. Banfi, G. Galasso, G. Domina

Ligustrum sinense Lour. (Oleaceae)

+ (CAS) **MOL**: Termoli (Campobasso), versante settentrionale del Vallone del Riovivo (WGS84: 41.996544°N; 14.994824°E), su lettiera di leccio, ca. 25 m, 3 September 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Molise.

Some young individuals grow on sandy soil, rich in litter, in the urban park of Termoli, under some *Quercus ilex* L. subsp. *ilex* trees and together with young plants of *Rhamnus alaternus* L. subsp. *alaternus* and *Q. ilex*. They have originated from seeds produced by some plants cultivated in the park.

N. Olivieri

Ludwigia peploides (Kunth) P.H.Raven subsp. *montevidensis* (Spreng.) P.H.Raven (Onagraceae)

+ (INV) **TOS**: Carmignano (Prato), fraz. Comeana, sponda del Torrente Ombrone Pistoiese (WGS84: 43.790174°N; 11.058680°E), sponda, popolazione di alcuni metri quadrati, distribuita sia in destra che in sinistra idrografica, 32 m, 26 August 2016, *J. Vannini*, *D. Dinelli*, det. *J. Vannini*, *D. Dinelli*, *V. Bigagli* (FI). – Invasive alien subspecies new for the flora of Toscana.

Ludwigia peploides subsp. *montevidensis* is an aquatic subspecies of South American origin, established in many European countries. It was introduced in Italy in the 20th century as ornamental plant for aquaria (Banfi and Galasso 2010). It quickly spread in many regions of northern Italy, as well as in Lazio (Azzella and Iberite 2010). It is a harmful invasive plant due to its rapid vegetative growth and high spread potential. The plant is subject to control and eradication projects in many European and South American countries. It was recently included in the list of Invasive Alien Species of Union Concern (Commission Implementing Regulation EU 2016/1141). The plant was identified according to Galasso (2007) and it was also observed in other locations along the Torrente Ombrone (il Castellare –Pistoia municipality, Pistoia–, Caserana and Ferruccia –Quarrata municipality, Pistoia–) and along the Arno River (Camaioni –Montelupo Fiorentino municipality, Firenze–). During the summer of 2016, rapid expansion of the taxon and a considerable increase of its coverage was observed.

J. Vannini, D. Dinelli, V. Bigagli, G. Ferretti

Morus indica L. (Moraceae)

+ (CAS) **ABR**: Francavilla al Mare (Chieti), recinzione in cemento posta tra un parcheggio e la linea ferroviaria, presso Via C. de Titta (WGS84: 42.421338°N; 14.287327°E), bordo di recinzione, ca. 3 m, 28 October 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Abruzzo.

A young specimen, about 2 m tall, grows within the town, on sandy soil near the Adriatic coast. The species is present with some adult trees grown as ornamental in neighboring private gardens. *Morus indica* is an East Asian species, originally distributed in China, Japan, Korea, Bhutan, India, Myanmar and Nepal (Zhou and Gilbert 2003), which has recently spread in Mediterranean countries as ornamental and shade-tree species, especially in coastal areas, for its resistance to salty winds. In Italy, *M. indica* had been found, so far, only in Lazio (Galasso et al. 2016b).

N. Olivieri

+ (CAS) **PUG**: Gallipoli (Lecce), lungo Via Messina, in un'area parzialmente ombreggiata (WGS84: 40.060313°N; 17.998421°E), bordo di marciapiede, ca. 27 m, 19 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

A young individual was found growing along the sidewalk in an area, partially shaded by the foliage of *Grevillea robusta* A.Cunn. ex R.Br., near a public garden where there is an arboreal individual of the species. The place is located in a suburban area, not far from the Ionian Sea.

N. Olivieri

Oenothera laciniata Hill. (Onagraceae)

+ (CAS) **LOM**: Vigevano (Pavia), Bosco Ronchi (WGS84: 45.285492°N; 8.937638°E), in a dry grassland, 75 m, 7 June 2016, *G. Gheza*, det. *S. Assini* (FI). – Casual alien species new for the flora of Lombardia.

Oenothera laciniata, which is native to North America, is known in Italy for Piemonte (Bouvet et al. 2005), Toscana (Foggi et al. 2005, Pierini and Peruzzi 2014) and Campania (Ricciardi et al. 1988). In the locality reported here, the species was recorded in a dry grassland of the *Thero-Airion* Tx. ex Oberd. 1957 in the valley of the Ticino River.

G. Gheza, S. Assini

Opuntia polyacantha Haw. (Cactaceae)

+ (CAS) **ITALIA** (**TAA**): Merano (Bolzano), Passeggiata Tappeiner (WGS84: 46.682944 N; 11.154278°E), prateria arida (*Festucetalia valesiacae*) su gneiss, 390 m, 2 January 2016, *T. Wilhalm* (BOZ); *ibidem*, 30 June 2016, *T. Wilhalm*, *A. Guiggi*, *M. Fink* (FI, BOZ, HMGBH). – Casual alien species new for the flora of Italy (Trentino-Alto Adige).

Thise species, of North American origin, is characterized by a prostrate habit and brown-yellowish fruit, dry when ripe (Benson 1982). Rarely cultivated, it has a re-

markable hardiness for low temperatures and showy blooms. The group of individuals observed in an area of ca. 1–2 m^2, excluding the ornithochory for the characteristics of the fruit, is probably of anthropic origin due to the ornamental value of the species. The plant produces flowers and fruits in this habitat.

A. Guiggi, T. Wilhalm

Oxalis latifolia Kunth (Oxalidaceae)

+ (CAS) **PUG**: Foggia (Foggia), Villa Comunale – Parco Karol Wojtyla (WGS84: 41.462011°N; 15.560057°E), vegetazione erbacea al di sotto di esemplari di *Pinus halepensis* ed *Eucalyptus camaldulensis*, ca. 64 m, 18 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

The species occurs in several areas of the park, mostly partially shaded by trees and in flowerbeds. Specimens have settled in groups on calcareous, alluvial, vertisol, in a dry area of herbaceous vegetation subjected to partial desiccation in the summer.

N. Olivieri

Parkinsonia aculeata L. (Fabaceae)

+ (CAS) **LIG**: Genova (Genova), Quinto al Mare, Via A. Gianelli (44.383852°N; 9.022160°E), fra la strada asfaltata e il marciapiede, 16 m, 22 September 2016, *S. Peccenini* (FI). – Casual alien species new for the flora of Liguria.

Parkinsonia aculeata, native to the northern and central American deserts, is reported in Italy as naturalized in Sicilia and Puglia, casual in Lazio, Calabria and Sardegna (Celesti-Grapow et al. 2009, Celesti-Grapow et al. 2013, Buono et al. 2017).

S. Peccenini

Paspalum dilatatum Poir. (Poaceae)

+ (NAT) **PIE**: Ronco Biellese (Biella), fraz. San Carlo-Caucino, lungo i margini di Via Camillo Benso Conte di Cavour e nei prati immediatamente a ridosso della strada (WGS84: 45.5835°N; 8.0852°E), margine stradale e prati, 540 m, 25 August 2015, *G. Peraldo*, *E. Bonivento*, conf. *M. Lonati*, *A. Selvaggi*, *F. Verloove* (FI). – Naturalized alien species new for the flora of Piemonte.

The genus *Paspalum* L. includes nearly 350 species distributed in tropical and subtropical regions, among which ten species are naturalized in Europe (Banfi and Galasso 2015, Verloove et al. 2016, Galasso et al. 2016a). In Italy, *P. dilatatum* was first ob-

served in Liguria, where it probably started spreading after 1909 from the neighbouring Nice in France (Ariello 1952). Until recently, the species was known from most of the Italian administrative regions (Conti et al. 2005), but not yet from Piemonte. The vector of introduction in the San Carlo-Caucino locality is not clear. However, the species was probably introduced as a weed seed contained in chicken feed, as confirmed by the first plants being observed within a small family-run henhouse (year 2014). The species has been slowly spreading and now it occupies a scattered area close to the road, ranging between 520 to 550 m a.s.l.

G. Peraldo, E. Bonivento, M. Lonati, F. Verloove, A. Selvaggi

Paulownia tomentosa (Thunb.) Steud. (Paulowniaceae)

+ (CAS) **PUG**: Gallipoli (Lecce), bordo di giardino pubblico presso Via Pavia (WGS84: 40.059127°N; 17.997769°E), margine, ca. 27 m, 19 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

The species is present with few, young individuals, some higher than 2 m, growing on the edge of a public garden in a dry and fairly sunny area, on residual red soil of calcareous origin. The specimens probably originated from seeds produced by a tree cultivated in the neighboring garden.

N. Olivieri

Platycladus orientalis (L.) Franco (Cupressaceae)

+ (CAS) **PUG**: Castrignano del Capo (Lecce), loc. Santa Maria di Leuca, parete rocciosa lungo la Strada Provinciale 358 "Delle Terme Salentine" nei pressi dello svincolo per Via Foresta Forte (WGS84: 39.798055°N; 18.368838°E), parete rocciosa, ca. 60 m, S, 21 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Puglia.

Some young individuals of the species have developed towards the top of the subvertical limestone rockface along the trench roadway, with *Thymbra capitata* (L.) Cav., *Dittrichia viscosa* (L.) Greuter subsp. *viscosa* and young individuals of *Pistacia lentiscus* L. They originated from seeds produced by some plants cultivated for ornamental purposes at the edges of a neighbouring private garden.

N. Olivieri

Pleuropterus multiflorus (Thunb.) Nakai (Polygonaceae)

≡ *Fallopia multiflora* (Thunb.) Haraldson ≡ *Reynoutria multiflora* (Thunb.) Moldenke

+ (CAS) **ABR**: Teramo (Teramo), lungo l'alveo del Torrente Vezzola (WGS84: 42.664161°N; 13.699792°E), vegetazione ripariale, ca. 240 m, 16 October 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Abruzzo.

Some individuals of the species grow along a path near the Vezzola Stream riverbed. They climb up to 3 m on *Robinia pseudoacacia* L. and *Prunus cerasifera* Ehrh. Below they are intertwined with branches of *Rubus ulmifolius* Schott. *Pleuropterus multiflorus* is a rhizomatous perennial climbing species, native to central and southern China (Li et al. 2003), introduced in Europe probably in the late 19th century as ornamental and recently spreading as alien in several administrative regions of northern Italy: Lombardia, Veneto, Trentino-Alto Adige, Piemonte (Galasso et al. 2006, Galasso and Ceffali 2008, Celesti-Grapow et al. 2009, Soldano and Galasso 2011), and Emilia-Romagna (http://www.actaplantarum.org/floraitaliae/viewtopic.php?f=40&t=69727, http://www.actaplantarum.org/floraitaliae/viewtopic.php?f=40&t=67829).

N. Olivieri

Rumex cristatus DC. (Polygonaceae)

+ (INV) **BAS**: Matera (Matera), Tre Ponti, Strada Provinciale Matera–Gioia del Colle (WGS84: 40.679146°N; 16.627682°E), margine stradale, con *Avena sterilis* subsp. *ludoviciana*, *Dasypyrum villosum*, *Carduus pycnocephalus*, *Ferula communis*, 342 m, 8 June 2016, *N. Ardenghi*, *P. Cauzzi*, *F. Guzzon* (*Herb. N. Ardenghi*); *ibidem*, Masseria di Pietrapenta, cava abbandonata (WGS84: 40.632286°N; 16.543702°E), terreno ruderale, con *Beta maritima*, *Dittrichia viscosa*, *Foeniculum vulgare*, 149 m, 9 June 2016, *N. Ardenghi*, *P. Cauzzi* (FI); *ibidem*, C.da Chiancalata, a lato della stradina per lo Studio legale Cifarelli (WGS84: 40.648249°N; 16.609604°E), fosso a lato della strada, con *Avena sterilis* e *Sorghum halepense*, 306 m, 10 June 2016, *N. Ardenghi, P. Cauzzi*, *F. Guzzon* (FI). – Invasive cryptogenic species new for the flora of Basilicata.

The choice of the invasive status is justified by the population near locality Tre Ponti in Matera, consisting of about 1,000 individuals distributed along the banks of the Fiumicello Stream over a distance of 1.15 km, from Tre Ponti eastwards to the point where the streamflow changes its direction northwards (WGS84: 40.679487°N; 16.641782°E).

N.M.G. Ardenghi, P. Cauzzi, F. Guzzon

Salvia abrotanoides (Kar.) Sytsma × *Salvia yangii* B.T.Drew (Lamiaceae)

+ (CAS) **ITALIA** (**LOM**): Milano (Milano), binari a lato di Via Molinetto di Lorenteggio (comune di Corsico), angolo Via F. Gonin (WGS84: 45.441001°N; 9.117402°E), binari del tram, 118 m, no exp., 29 September 2013, *G. Galasso* (FI, MSNM). – Casual alien hybrid new for the flora of Italy (Lombardia).

+ (CAS) **TAA**: Pergine Valsugana (Trento), Pergine, sull'argine destro del Torrente Fersina poco a valle del ponte per Brazzaniga (CFCE: 9933/1) (WGS84: 46.071290°N; 11.236011°E), argine-margine della strada, tre cespi in un punto dove certamente non è stata piantata, presenza casuale, 488 m, 30 September 2014, *A. Bertolli*, *F. Prosser*, *G. Tomasi* (FI, ROV–67688). – Casual alien hybrid new for the flora of Trentino-Alto Adige.
+ (CAS) **TOS**: Siena (Siena), Strada di Marciano, su un muro esterno del Park Hotel Villa Gori Golf Club (WGS84: 43.331675°N; 11.305386°E), muro, 357 m, SE, 22 July 2016, *G. Bonari* (FI). – Casual alien hybrid new for the flora of Toscana.

Salvia subg. *Perovskia* (Kar.) J.B.Walker, B.T.Drew & J.G.González (Drew et al. 2017) includes about 8 species widely distributed over arid regions of Asia (Krüssmann et al. 1986, Hedge 1990, Li and Hedge 1994, Grant 2000, Hedge 2011). We considered several sources to identify our plants. Several cultivars are selected by gardeners (Grant 2007) thereby complicating nomenclature and identification. At first glance, we were inclined to attribute the taxon to *S. yangii* (≡ *Perovskia atriplicifolia* Benth.), but leaves were not "simple, margins crenate, serrate or subentire" as reported by Hedge (2011, see also Rechinger 1982). In fact, several varieties can be identified based on leaf shape and indumentum characters, but a comprehensive review is lacking (Hedge and Lamond 1968). Thus, "leaves bipinnatisect" guided us towards *S. abrotanoides* (≡ *P. abrotanoides* Kar.), also considering the figures (plates 369–372, 592) reported by Rechinger et al. (1982). However, this taxon did not perfectly fit our specimens either. Rechinger (1982) reported a hybrid (pl. 373 in Rechinger et al. 1982), which is the plant cultivated in North America according to Darke and Tucker (1989). Our plants seemed to correspond to "*Perovskia* ×'Hybrida' (= *P. abrotanoides* × *atriplicifolia*?)", based on the figure provided by Krüssmann et al. (1986), a plant cultivated by Hillier (England) since 1937 and distributed from the Geisenheim Research Institute since 1955 as *P.* 'Superba'. Because our specimens surely derived from seeds dispersed from cultivated flowerbeds in the cities, "*P.* 'Hybrida'" should be the best name to apply, but "it is not clear whether the majority of cultivars are variants of *P. atriplicifolia* or hybrids between *P. abrotanoides* and *P. atriplicifolia*" (Grant 2007). Considering that they differ from both the genuine putative parental species, we prefer to use the name *S. abrotanoides* × *S. yangii*, a hybrid apparently without nothospecific epithet because the only available one (in *Perovskia*) is *P.* ×*intermedia* Lazkov (*P. abrotanoides* × *P. angustifolia* Kudr.; Sennikov et al. 2011).

G. Bonari, G. Galasso, F. Prosser

Senecio inaequidens DC. (Asteraceae)

+ (NAT) **PUG**: San Giovanni Rotondo (Foggia), periferia S del paese (WGS84: 41.699155°N; 15.720507°E), margine stradale, 550 m, 25 October 2016, *R.P. Wagensommer* (*Herb. R.P. Wagensommer*); *ibidem*, periferia SSW del paese (WGS84:

41.699451°N; 15.711909°E), margine stradale e su materiale di riporto (ghiaia), 560 m, 27 October 2016, *R.P. Wagensommer* (FI, *Herb. R.P. Wagensommer*); Lesina (Foggia), alla stazione ferroviaria (WGS84: 41.854374°N; 15.296612°E), margine stradale e del parcheggio asfaltato, 40 m, 27 October 2016, *R.P. Wagensommer* (*Herb. R.P. Wagensommer*). – Naturalized alien species new for the flora of Puglia.

This invasive species occurs in all Italian administrative regions. To date, it was not recorded only in Puglia (Conti et al. 2005, Celesti-Grapow et al. 2009). We found it in two different sites on the Gargano Promontory, Lesina (about 30 mature individuals) and San Giovanni Rotondo (about 50 mature individuals).

R.P. Wagensommer, E.V. Perrino, G. Russo

Setaria parviflora (Poir.) Kerguélen (Poaceae)

+ (NAT) **CAL**: Scalea (Cosenza), Via Ruggiero di Lauria (WGS84: 39.815817°N; 15.787228°E), fessure della pavimentazione, 6 m, 20 August 2014, *A. Stinca* (PORUN). – Status change from casual to naturalized alien for the flora of Calabria.

This species is recorded from Lombardia, Liguria, Toscana, Marche, Lazio, Campania, Puglia, Calabria, Sicilia, and Sardegna (Celesti-Grapow et al. 2009, Cecchi and Arrigoni 2013, Stinca et al. 2013, Gubellini et al. 2014, Stinca et al. 2016). In Calabria, *Setaria parviflora* is reported as a casual alien (Bernardo et al. 2009) where it was known only for the valley of the Crati River (Banfi and Passalacqua 2011). At Scalea, it exhibits a notable vegetative and sexual propagation capacity; it was also observed in August 2016.

A. Stinca

Syagrus romanzoffiana (Cham.) Glassman (Arecaceae)

+ (CAS) **ITALIA** (**PUG**): Brindisi (Brindisi), Via Duca degli Abruzzi, giardini pubblici presso il monumento al Marinaio d'Italia (WGS84: 40.644977°N; 17.946627°E), tappeto erboso umido spesso irrigato, ca. 10 m, S, 22 August 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Italy (Puglia).

Some very young specimens, identified according to Cullen et al. (2011) and Squire (2007), have grown close to adult individuals of the species in a wet meadow frequently watered and located near the Adriatic Sea. In Brindisi *Syagrus romanzoffiana* is very popular as an ornamental plant in gardens and avenues. Fruits are regularly produced and accumulate on the ground below the trees. The species is native to South America (Brazil, part of Argentina, Paraguay, Uruguay and Bolivia). For its ornamental value, it is widespread in many tropical and subtropical areas and, more recently, also in Mediterranean countries. It is naturalized in Florida, Mauritius and eastern

Australia (Queensland and New South Wales), where it is considered an invasive alien (Randall 2001).

N. Olivieri

Tradescantia fluminensis Vell. (Commelinaceae)

+ (CAS) **MOL**: Termoli (Campobasso), versante collinare S del Vallone del Riovivo (WGS84: 41.993833°N; 14.996083°E), margine di sentiero e canneto di *Arundo donax*, ca. 27 m, 3 September 2016, *N. Olivieri* (FI). – Casual alien species new for the flora of Molise.

The species grows near the Adriatic coast, in the urban park of Termoli, along a path edge and inside a cane thicket of *Arundo donax* L., along with *Rubus ulmifolius* Schott, *Hedera helix* L. and *Parietaria judaica* L. Plants grow in penumbra, on sandstone soil covered by nitrophilous vegetation typical of disturbed shaded areas.

N. Olivieri

Trifolium alexandrinum L. (Fabaceae)

+ (CAS) **BAS**: Matera (Matera), Bosco di Lucignano, ca. 185 m a SE dalla Cisterna di San Francesco (WGS84: 40.606911°N; 16.703098°E), campo di grano duro, con *Avena sterilis* subsp. *ludoviciana*, *Glebionis segetum*, *Anchusa azurea*, *Phalaris brachystachys*, un esemplare, 363 m, 9 June 2016, *N. Ardenghi*, *P. Cauzzi* (FI). – Casual cryptogenic species new for the flora of Basilicata.

A single individual was found in the middle of a durum wheat field.

N.M.G. Ardenghi, P. Cauzzi, F. Guzzon

Vicia lens (L.) Coss. & Germ. subsp. *orientalis* (Boiss.) Galasso, Banfi, Bartolucci & J.-M. Tison, comb. nov. (Fabaceae)

urn:lsid:ipni.org:names:60474540-2

≡ *Ervum orientale* Boiss., Diagn. Pl. Orient., ser. 1 9: 115(–116). 1849 [I–II.1849] ≡ *Lens orientalis* (Boiss.) Schmalh., Fl. Sredn. Yuzhn. Rossii 1: 297. 1895 ≡ *Vicia orientalis* (Boiss.) Bég. & Diratz., Contr. Fl. Armenia: 61. 1912 [XI.1912] (n.v.) ≡ *Lens culinaris* Medik. subsp. *orientalis* (Boiss.) Ponert, Feddes Repert. 83(9–10) (1972): 634. 1973 [25.IV.1973].

According to the molecular phylogenetic research published by Schaefer et al. (2012), the genus *Lens* Mill. is nested within *Vicia* L. For the type species of *Lens*

(*Lens culinaris* Medik.), the binomial *Vicia lens* (L.) Coss. & Germ. was restored by the above cited authors. Since the subspecific rank is considered suitable for representing taxonomic relationships between a domesticated crop and its wild relative, a new combination is proposed here for the wild relative of *Vicia lens*. It is distinct from the crop for a smaller size of the plant, allogamy, ready opening of the mature pod and seed dormancy (Ladizinski 1993, Zohari et al. 2012).

G. Galasso, E. Banfi, F. Bartolucci, J.-M. Tison

Yucca gloriosa L. (Asparagaceae)

+ (INV) **TOS.** – Status change from naturalized to invasive alien for the flora of Toscana.

Yucca gloriosa, native to North America, is currently recognized as naturalized in Toscana (Ciccarelli et al. 2015). During field surveys conducted along the coastal part of the Migliarino-San Rossore-Massaciuccoli Regional Park, we noted a widespread diffusion of the species. Its high frequency along the Tuscan coast can be also deduced from several floristic records (Peruzzi and Bedini 2015 onwards, Roma-Marzio et al. 2016 and literature cited therein). Based on our field observations, the species shows a high clonal propagation capacity, determining modifications in vegetation and ecosystem dynamics. In addition, the *ad hoc* LIFE project DUNETOSCA (http://ec.europa.eu/environment/life/project/Projects/), conducted in 2010–2013, failed to eradicate the species. Based on these considerations, we regard the status of invasive alien to be most appropriate for *Y. gloriosa* in Toscana.

M. D'Antraccoli, F. Roma-Marzio

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